



Technical Data Sheet

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10% Potassium Hydroxide (10% KOH)

RDM-K-KOH-01

Principle

The Laboratory Handbook of Medical Mycology recommends the use of 10% KOH for direct detection of fungal elements in the dermatological field. One of its major uses is in identifying fungal elements in the skin, hair, nails, and different body secretions.

10% KOH acts to disrupt the cellular material of fungi and dissolve proteinaceous substances to soften, digest, and clear the tissues (e.g., keratin) so that the fungal component hyphae and conidial spores are clearly visible under a microscope. The glycerol prevents crystallization of the 10% KOH solution and also prevents the specimen from drying out.

Use: To detect fungal elements or cellular materials.

Contents*

Potassium Hydroxide (KOH)	10 gm
Glycerol	10 ml
Sterile Distilled Water	90 ml

* Formula adjusted for optimum performance and parameters

Directions:

1. Place a drop of 10% KOH on clean and sterile glass slide.
2. Place specimen in the 10% KOH drop and cover with coverslip and press gently to make a thin mount.
3. Incubate slide at room temperature for 5 to 30 minutes or gently heat the prepared slide for clearing the sample and digesting cellular materials.
4. Examine the slide for fungal elements under a compound light microscope at low power (100 X magnification) or high power (400 X magnification).

Specimens' types analyzed

Clinical and non-clinical samples

Precautions to be taken

1. Reagents must be added in the order and the amounts specified or a weak-positive or false-negative reaction may occur.
2. Clinical samples and microbial cultures should be considered as pathogenic biohazard and handled accordingly. Good laboratory practices and hazard precautions must be observed at all times.
3. The test is an aid to identification and is not a confirmatory test. Complete identification should include determination of morphology, and other biochemical and serological tests.
4. Do not use damaged or leaking kits. Avoid contact of reagents with skin and eyes.

Performance and Evaluation

The expected performance of the kit is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Physical Parameters:

Physical state - Liquid.

Color of solution – Transparent and clear solution

Results Interpretation

Examine the slide microscopically on low or high magnification power.

Observe: true hyphae (hyaline, dematiaceous, zygomycetes), spores, conidia, budding yeast, spherules, blastomyces, Coccidioides, Paracoccidioides species.

Please refer to an appropriate technical source when necessary.

Positive: Histoplasma, Fungal elements present

Negative: Fungal elements absent

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Leber, Amy L., editor in chief. (2016). Clinical microbiology procedures handbook (Fourth edition). Washington, DC: ASM Press 1752 N St., N.W., [2016]
2. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
3. KOH Wet Mount Preparation: Introduction, Principle, Test Require (medicallabnotes.com)
4. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

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